

National Competency Framework for Registered Nurses in Adult Critical Care

Specialist Competencies



Version 1 : August 2019



Learner Name	
PRINT	SIGNATURE
Lead Assesor/Mentor Name	
PRINT	SIGNATURE

Foreword

Competence is defined throughout this document as:

'The combination of skills, knowledge and attitudes, values and technical abilities that underpin safe and effective critical care nursing and interventions'

These competencies are intended to be used in addition to the Critical Care Network's (CC3N) Step Competencies for nurses working in a critical care environment that cares for and manages liver patients.

The CC3N Step One Competencies should be completed first as a pre requisite with the specialist liver competencies following these either before or after CC3N Step Two and Step Three competencies according to unit requirements.

These competencies are intended for use by all critical care facilities that receive liver patients.

There will be variance between different critical care facilities managing liver patients and therefore each individual facility should identify those competencies that are relevant (and thus potentially achievable) with those competencies identified as not relevant being marked 'Not Applicable' or being 'greyed out'.

Aims and Objectives

The aim of this document is to provide comprehensive addition to the National Competency Framework to cover those working in Specialist Liver Centres.

It is anticipated that these competencies will form the next steps in your development and provide you with the knowledge and skills to:

- support the specialist nursing care required by the liver patient
- understand the different needs of the liver injured patient
- understand the importance of involving other specialities and the team contribution to liver care
- refer to or work alongside appropriate regional services for ongoing care

Assessment and Assessors

These competencies are intended to be used in addition to the Critical Care Network's (CC3N) Step Competencies for nurses working in a critical care environment which provides care for patients with liver injury or post liver surgery. The CC3N Step One Competencies should be completed first as a pre-requisite with Specialist Liver Competencies following these either before or after CC3N Step Two and Step Three competencies according to unit requirements.

While these are recommendations from the Critical Care Nurse Education Forum it is also acknowledged that clinical environments and staffing arrangements may vary from unit to unit. This may require adaptation to how this document is operationalized. It is strongly advocated that adaptations to use of this document are approved by Nursing Leads and Unit Managers within the speciality.

This document is designed to be included into the National Competency Framework for Registered Adult Critical Care Nurses. Competencies can be signed by an Assessor who has undertaken post registration critical care specialist training in the relevant speciality and has relevant experience and qualification as a mentor / assessor preferably with an educational qualification.

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Learning Contract

The following Learning Contract applies to the Individual Learner, Lead Assessor/Mentor and Unit Manager/Lead Nurse and should be completed before embarking on this competency development programme. It will provide the foundations for:

- Individual commitment to learning Commitment to continuing supervision and support
- Provision of time and opportunities to learn

LEARNERS RESPONSIBILITIES

As a learner I intend to:

- Take responsibility for my own development
- Form a productive working relationship with mentors and assessors
- Deliver effective communication processes with patients and relatives, during clinical practice
- Listen to colleagues, mentors and assessors advice and utilise coaching opportunities
- Use constructive feedback positively to inform my learning
- Meet with my Lead Assessor/Mentor at least 3 monthly
- Adopt a number of learning strategies to assist in my development
- Put myself forward for learning opportunities as they arise
- Complete all competencies in the agreed time frame
- Use this competency development programme to inform my annual appraisal, development needs and NMC Revalidation
- Report lack of mentorship/supervision or support directly to the Lead Assessor/Mentor, and escalate to the Clinical Educator/Unit Manager or equivalent if not resolved.

Learner Name (Print)	
Signature	Date:
LEAD ASSESSOR RESPONSIBILITIES As a Lead Assessor I intend to: • Meet the standards of regularity bodies (NMC, 2015) • Demonstrate ongoing professional development/comp. • Promote a positive learning environment • Support the learner to expand their knowledge and ur. • Highlight learning opportunities • Set realistic and achievable action plans • Complete assessments within the recommended times • Bring to the attention of the HEI, Education Lead and/learning and development • Plan a series of learning experiences that will meet the • Prioritise work to accommodate support of learners will • Provide feedback about the effectiveness of learning and	rame or Manager concerns related to the individual nurses individuals defined learning needs thin their practice roles nd assessment in practice
Lead Assessor Name (Print)	
CRITICAL CARE LEAD NURSE/MANAGER As a critical care service provider I intend to: • Facilitate a minimum of 40% of learners' clinical pract Educator or delegated appropriate other within the multiple Provide and/or support clinical placements to facilitate essential competency requirements • Regulate and quality assure systems for mentorship and transferability of the nurses' competence	tidisciplinary team the learners' development and achievement of the core/
Lead Nurse/Manager Name (Print)	

Date:

Signature

Authorised Signature Record

To be completed by any Lead Assessor/Mentor or Practice Educator.

Print Name	Sample Signature	Designation	NMC NUMBER	Organisation

Specialist Liver Competencies: Tracker Sheet

Competency Statement	Date Achieved	Mentor/Assessors Signature
1.1 Anatomy & Physiology		
1.1.1 Hepatobiliary Anatomy & Physiology		
1.2 Conditions		
1.2.1 Acute liver failure (ALF)		
1.2.2 Chronic liver failure (CLF)		
1.3 Interventions		
1.3.1 Transjugular intrahepatic portosystemic shunt (TIPSS)		
1.3.2 Endoscopic band ligation		
1.3.3 Sclerotherapy		
1.3.4 Biliary Interventions		
1.3.5 Balloon tamponade tube		
1.3.6 Plasma exchange		
1.4 Surgical procedures		
1.4.1 Local surgical procedures		
1.4.2 PPPD (Whipples)		
1.5 Transplantation		
1.5.1 Liver transplant programmes		
1.5.2 Care of the post-transplant patient		
1.5.3 Immunosuppression		
1.6 Considerations for referring units		

1:1 Anatomy & Physiology

1.1.1 Hepatobiliary Anatomy & Physiology

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
Liver o Gross anatomy o Structure of portal triad o Vascular anatomy	
Gall Bladder & Common bile ducts o Anatomical position o Role and function	
Spleen o Anatomical position o Role and function	
 Hepatocyte role and function including: o Coagulation o Production of bile o Homeostasis o Glycaemic control o Storage o Metabolism (nutrient and drug) o Maintaining plasma volume o Detoxification o Regeneration 	
Kupffer cells o Role and function	
Liver physiology o Physiological manifestations of liver dysfunction o Interpretation of abnormal liver biochemistry	
 Causes of Liver or biliary dysfunction: Obstruction Inflammation Infection Perforation Cirrhosis 	

1:2 Conditions

1.2.1 Care and Management of a Patient with Acute Liver Failure (ALF)		
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign	
Definition of ALF		
Recognises common and un-common causes of ALF including obstetric aetiologies		
Investigations involved in: O Diagnosis of ALF O Monitoring the progression of ALF O Provide rationale for the monitoring and management of coagulopathy in a patient with ALF		
Choose a cause of ALF and describe the underlying pathophysiology e.g. Paracetamol overdose		
 Able to discuss the different grading of ALF Potential aetiologies of different grades Effects on patient outcomes 		
 Clinical manifestations in organs: Brain Lungs Heart Liver Pancreas Adrenal Gland Kidneys Bone Marrow 		
You must be able to undertake the following in a safe and professional manner:		
Discusses the initial management of a patient with ALF		
• Explain potential treatment options for a patient with ALF		
The role and action of N-Acetylcysteine		
Discuss the role of plasma exchange		
Demonstrates basic understanding of listing criteria for liver transplantation (see transplantation section)		
Discusses the importance of prevention/ management of sepsis in patients with ALF		
 Discusses the longer-term effects of surviving ALF: o Physiological o Psychological 		

1.2.1 Care and Management of a Patient with Acute Liver Failure (ALF) Continued

You must be able to undertake the following in a safe and professional manner:	Competency Fully Achieved Date/Sign
• Assessment of neurological status in ALF	
Using an A-E approach, identify nursing management strategies to prevent/ minimise /manage cerebral oedema in ALF	
Discuss additional methods of monitoring cerebral perfusion in ALF	
As per local policy, administer pharmacological therapy to reduce cerebral oedema in ALF	
Demonstrate/discuss how you would perform nursing care activities to minimise impact of cerebral oedema as a result of ALF	
Assess haematological stability to evaluate deteriorating liver function in ALF	
Discuss specific additional nutritional requirements for patients with ALF	
Discuss specific considerations for patients with ALF requiring RRT	

1.2.2 Chronic Liver Failure (CLF)

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
• Definition of CLF	
 Recognises common and un-common causes of CLF and their associated pathophysiology: Alcohol related Liver Disease Non-alcohol related fatty liver disease/ Non-alcohol related steatohepatitis Viral Hepatitis Cholestatic liver diseases Vascular liver diseases Metabolic causes 	
Describe the presentations of CLF Acute de-compensation/acute-on-chronic	
Complications associated with CLF and their treatments/interventions:	
Jaundice o Physiology of bilirubin production o Liver's role in bilirubin clearance o Causes of pre/intra/post hepatic jaundice o Implications and risks for patient o Treatment strategies	
Portal hypertension o Explain splanchnic arterial vasodilation theory o Manifestations of portal hypertension o Implications and risks for patient o Treatment strategies	

1.2.2 Chronic Liver Failure (CLF) Continued

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
 Ascites Discuss pathophysiology underlying the formation of ascites Implications and risks for patient Treatment strategies 	
 Variceal bleeding Discuss pathophysiology underlying the formation of varices Implications and risks for patient Treatment strategies (see section 3.0) 	
 Hepatic encephalopathy Discuss theories related to the pathophysiology of hepatic encephalopathy Implications and risks for patient Treatment strategies 	
 Susceptibility to infection o Discuss pathophysiology underlying functional immunosuppression in liver disease o Implications and risks for patient o Treatment strategies 	
 Manifestations of extra-hepatic organ failure associated with CLF: Brain Lungs Heart Liver Pancreas Adrenal Glands Kidneys Bone Marrow 	
Initial management/treatment of CLF: O Pharmacological O Surgical O Lifestyle O Psychosocial	
Discuss the further management of CLF including assessment for transplantation (see also section 1. 5)	

1.3 Interventions	
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
1.3.1 Transjugular Intrahepatic PortoSystemic Shunt (TIPSS)	
Definition of TIPSS o Discuss the indications and contraindications for TIPSS o Describe how the procedure is carried out o Recognise the possible associated complications of TIPSS	
1.3.2 Endoscopic Band Ligation	
Definition of 'Banding' o Discuss the indications and contraindications for banding o Describe how the procedure is carried out o Recognise the possible associated complications of banding	
1.3.3 Injecting (Sclerotherapy)	
o Define Sclerotherapy o Discuss the indications for Sclerotherapy o Recognise the possible associated complications of sclerotherapy	
1.3.4 Biliary Interventions	
o Describe the role of endoscopic (ERCP and EUS) and radiological interventions (PTC) o Recognise the complications of biliary interventions o Discuss/instigate appropriate management of complications	
1.3.5 Balloon Tamponade Tube	
o Definition o Discuss the indications/contraindications for the procedure o Describe how the procedure is carried out o Recognise the possible associated complications of balloon tamponade tube o Discuss the nursing management of a balloon tamponade tube	
1.3.6 Plasma Exchange (plasmapheresis)	
o Define Plasma exchange o Discuss the role of plasma exchange in patients with liver failure o Recognise the possible associated complications of plasma exchange	

1.4 Surgical procedures

1.4.1 Surgical procedures	
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
 Discuss surgical procedures which are undertaken in your specialist centre including: Liver resection Associated Liver Partition and Portal Vein Ligation for staged hepatectomy (ALPSS) 	

1.4.2 Pylorus preserving pancreatoduodectomy (PPPD)/Whipples You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice): O Definition of PPPD/Whipples O Discuss the indications and contraindications for PPPD O Discuss the indications and contraindications for Whipples O Recognise the possible associated complications of Whipples O Discuss local nursing management procedures

The competencies below are to be achieved in centres which perform liver transplantation

1.5 Liver Transplantation

1.5.1 Liver Transplantation

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
Indications for Liver Transplantation-acute liver failure	
Indications for Liver Transplantation-chronic liver failure	
Assessing results of blood tests pre-transplantation	
Categories for Super urgent Listing (acute liver failure) o Responsibilities of the bedside nurse for the listed patient	
The role of Transplant Co-ordinators	
Awareness of national liver offering scheme with consideration of donor and recipient characteristics	
Living related donor programmes	
Ethical considerations in transplantation	
Contraindications to transplantation	

1.5.2 Assessment and Management of Post Liver Transplant Patient

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice): Competency Fully Ach Date/Sign			
Awareness of common post-operative complications			
Considerations for patient monitoring as per local guidelines (A-E assessment)			
Considerations for results of post-transplant imaging			
Blood Results and assessment			
Assessment and management of haemostasis			
Anti-rejection Drugs (see 1.5.3 immunosuppression section)			
Nutritional considerations			
Implications of ABO mismatched donor liver			
Psychological Care			
Care of Relatives			

1.5.3 Immunosuppression

You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign
Understand necessity for immunosuppressive therapy and methods of action	
Discuss different types of immunosuppression with awareness of local policy and practices	
Awareness of alternate agents/regimes	
Adhere to local policy for monitoring of levels	
Adverse effects and risks to patient	

Liver patients can be unstable and unpredictable, below is a section intended to prepare the nurse for safe management of a critically ill liver patient outside a specialist liver centre, or to facilitate the safe transfer to a liver specialist centre

1.6 Considerations for referring units				
You must be able to demonstrate through discussion essential knowledge of (and its application to your evidence based practice):	Competency Fully Achieved Date/Sign			
• The importance of timely nursing and medical advice from specialist liver centre				
 Have awareness of key considerations for patients suffering from acute and chronic liver dysfunction, specifically frequent monitoring of: Physiological manifestations of liver dysfunction Coagulopathy Neurological status/grading of hepatic encephalopathy Blood glucose levels 				
On decision to transfer: o Ensure specialist nursing and medical advice from receiving facility is in place o Adhere to local Critical Care Network guidelines for safe Transfer o Have awareness of potential airway compromise related to worsening encephalopathy during transfer				

Initial Assessment & Development Plan
·
Date
This meeting between Learner and Lead Assessor should take place on commencement of these competencies. It is to identify the needs of the nurse and those competencies that should be attained within the first 3 months of commencing the competency development programme.
CURRENT CRITICAL CARE KNOWLEDGE LINDERCTANDING AND CKILLS
CURRENT CRITICAL CARE KNOWLEDGE, UNDERSTANDING AND SKILLS
COMPETENCIES TO BE ACHIEVED
SPECIFIC SUPPORTIVE STRATEGIES REQUIRED
Learners Signature:
Learners Signature:
Lead Assessors / Practice Educators Signature:
2000 - SUCCESSOR / Fractice Educators Signature.
NEXT AGREED MEETING DATE:

Ongoing Assessment & Development Plan
Date
This meeting between Learner and Lead Assessor is to identify the progress made by the nurse in achieving competence in practice against those competencies identified in the initial/previous meetings. It is here further objectives will be set. Ongoing assessments should take place at least every 3 months. If the learner requires additional support a further action plan can be completed.
REVIEW OF COMPETENCIES ACHIEVED
ON TARGET: YES NO NO
IF NOT WHICH COMPETENCIES HAVE YET TO BE MET
REASONS FOR NOT ACHIEVING
SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE
KEY AREAS & ADDITIONAL COMPETENCIES TO BE ACHIEVED BEFORE NEXT MEETING
Learners Signature:
Lead Assessors / Practice Educators Signature:
NEXT AGREED MEETING DATE:

Addition	nal Ac	tion Pla	anning	
Date				CNAADT aking time for the large way in
additional su	upport to	achieve ce	ed as required to sertain competencie pment Plan).	set SMART objectives for the learner who requires es (these will have been identified during the 3 monthly
AREAS FOR	FURTHER	ACTION F	PLANNING	
Learners Sig	nature:			
	natule			
Lead Assess	ors / Pract	ice Educa	ors Signature:	
NEXT AGRE	ED MEETII	NG DATE.	1	

Final C	ompet	ency A	ssessment	
Date	I	I	I	
	ng is to ide t practition		all the competencies	have been achieved and that the nurse is considered a safe
The nurse competen		nssessed ag y critical ca	are colleagues, mento	cies within this document and measured against the definition of ors and assessors and is considered a competent safe practitioner
			nowledge and atti	tudes, values and technical abilities that underpin safe and tions".
				o maintain a portfolio of practice as part of NMC regulations to ning development needs to their line manager or appropriated
				aff personal development plans. Where necessary, objectives will required to work safely within the critical care environment.
LEAD ASS	ESSORS CO	OMMENTS		
LEARNERS	COMMEN	ITS		
			`	
Learners S	ignature: .			
Lead Asses	ssors / Prac	tice Educa	tors Signature:	
NEXT AGR	REED MEET	ing date:	I	

Annual Competency Review
Date I I I This record is a statement between the nurse who has completed their Liver competencies successfully and their Assessor /Practice Educator and/or Appraiser. It should be used and reviewed alongside local appraisal systems annually to ensure that the nurse continues to demonstrate themselves as a safe competent critical care practitioner.
OVERALL COMPETENCY MAINTAINED YES NO NO
IF NOT WHICH COMPETENCIES REQUIRE FURTHER DEVELOPMENT
SPECIFIC OBJECTIVES TO ACHIEVE COMPETENCE
FURTHER COMMENTS
Learners ignature:
Lead Assessors / Practice Educators Signature:
NEXT AGREED MEETING DATE:

NMC Revalidation Checklist
Data I (Please add data to the Assessment Beserd Summan)
Date I I (Please add date to the Assessment Record Summary) Revalidation is a continuous process that nurses need to engage with throughout their career. It is not a point in time activity or assessment; however, you will need to be able to provide evidence of achievement against the NMC requirements. This document should be completed as part of your local appraisal.
EVIDENCE OF COMPLETING 450 PRACTICE HOURS IN CRITICAL CARE YES NO
LIST EVIDENCE PRODUCED BELOW
EVIDENCE OF COMPLETING 40 HOURS CONTINOUS PROFESSIONAL DEVELOPMENT (CPD) YES NO
(20 HOURS NEED TO BE PARTICIPATORY LEARNING, LIST EVIDENCE PRODUCED BELOW)
EVIDENCE OF REFELECTING ON CPD YES NO
EVIDENCE OF REFELECTING ON CPD VES NO LIST EVIDENCE PRODUCED BELOW
EVIDENCE OF APPROPRIATE PROFESSIONAL INDEMNITY ARRANGEMENTS YES NO LIST EVIDENCE PRODUCED BELOW

NMC Revalidation Checklist continued	
3rd PARTY CONFIRMATION	
LEARNERS NAME	
LEARNERS PIN	
CONFIRMERS NAME	
CONFIRMERS JOB TITLE	
CONFIRMERS PIN	
CONFIRMERS EMAIL ADDRESS	
	•

Reflective Accounts to inform NMC Revalidation You are required to record a minimum of five written reflections on the NMC Code and your Continuous Professional Development as well as gaining practice-related feedback, as outlined in 'How to revalidate with the NMC'. You are advised to complete the following documents during your critical care development to inform your NMC Revalidation, you are required to discuss these reflections with your Mentor/Lead Assessor/ Mentor and/or Practice Educator at your on-going assessment reviews, your final assessment and/ or your annual progress review as part of your local appraisal process. Once you have discussed these reflections your Mentor/Lead Assessor/Mentor and/or Practice Educator will need to complete the relevant 'Professional Development Discussions' (PDD) documentation to provide evidence of this. Reflective Account Date Please fill in a page for each of your reflections, ensuring you do not include any information that might identify a specific patient or service user. You must discuss these reflections as part of a professional development discussion (PDD) with another NMC registrant who will need to complete the PDD document to provide evidence of this taking place. WHAT WAS THE NATURE OF THE CPD ACTIVITY/ PRACTICE-RELATED FEEDBACK? WHAT DID YOU LEARN FROM THE CPD ACTIVITY AND/OR FEEDBACK? HOW DID YOU CHANGE OR IMPROVE YOUR WORK AS A RESULT? **HOW IS THIS RELEVANT TO THE CODE?** (Select a theme, Prioritise people - Practice effectively - Preserve safety - Promote professionalism and trust)

Learners Signature:

Professional Development Discussion (PDD)
Date I I
You are required to have a PDD with another NMC registrant covering your written reflections on the Code, your CPD and practice-related feedback. This form should be completed by the registrant (Mentor/Lead Assessor/Mentor and/or Practice Educator) with whom you have had the discussion.
NAME NMC PIN
EMAIL ADDRESS
PROFESSIONAL ADDRESS (INCLUDING POSTCODE)
NAME OF REGISTRANT (WITH WHOM YOU HAD A PDD DISCUSSION)
NMC PIN OF REGISTRANT (WITH WHOM YOU HAD A PDD DISCUSSION)
NUMBER OF REFLECTIONS DISCUSSED:
DECLARATION: I CONFIRM THAT I HAVE DISCUSSED THE NUMBER OF REFLECTIVE ACCOUNTS LISTED ABOVE, WITH THE ABOVE NAMED REGISTRANT, AS PART OF A PDD AND IN LINE WITH THE 'HOW TO REVALIDATE WITH THE NMC'
Signature:

Specialist Centres

There are seven hospitals in the UK with Adult Liver Transplant Units:

Hospital	Address	Contact Number:
London – Royal Free Hospital	Pond Street, Hamstead, London NW3 2QG.	General Enquiry – 020 3758 2000 Liver Unit - 020 7794 0500 x 36896
London – Kings College Hospital	Denmark Hill, London SE5 9RS.	General Enquiry – 0203 299 9000
Birmingham – Queen Elizabeth Hospital	Mindelsohn Way, Edgbaston, Birmingham B15 2WB.	General Enquiry – 0121 371 2000 ICU 0121 371 6330
Leeds – St Jame's Univesity Hospital	Beckett St, Leeds, West Yorkshire LS9 7TF	General Enquiry – 0113 243 3144 Liver ICU - 0113 206 9154.
Newcastle – Freeman Hospital	Freeman Road, Leeds, High Heation, Newcastle upon Tyne NE7 7DN	General Enquiry – 0191 233 6161
Cambridge - Addenbrooke's Hospital	Hills Road, Cambridge, CB2 0QQ	General Enquiry – 10223 245151
Edinburgh Royal Infirmary	Little France Crescent, Edinburgh EH16 4SA	General Enquiry – 0131 242 3041

Abbreviations

ALF	Acute Liver Failure
ALPSS	Associated Liver Partition and Portal Vein Ligation for staged hepatectomy
CLF	Chronic Liver Failure
CNS	Central Nervous System
СТ	Computerised Tomography
CVP	Central Venous Pressure
CVS	Cardio Vascular System
ERCP	Endoscopic Retrograde Cholangio-Pancreatography
ETT	Endotracheal Tube
EUS	Endoscopic Ultrasound
GCS	Glasgow Coma Scale
MAP	Mean Arterial Pressure
MDT	Multi-disciplinary Team
PPPDS	Pylorus preserving pancreatoduodectomy
PTC	Percutaneous Transhepatic Cholangiogram
RRT	Renal Replacement Therapy
SMART	Specific, Measureable, Attainable, Relevant, Timely
TIPSS	Transjugular Intrahepatic PortoSystemic Shunt
VTE	Venous Thromboembolism

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Notes		

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This document has been produced with support from these organisations and is available through the CC3N website: www.cc3n.org.uk. It has received interest internationally and may be available in the future in alternative languages, it has also be used to inform registered nurse competency development in specialities outside of critical care.